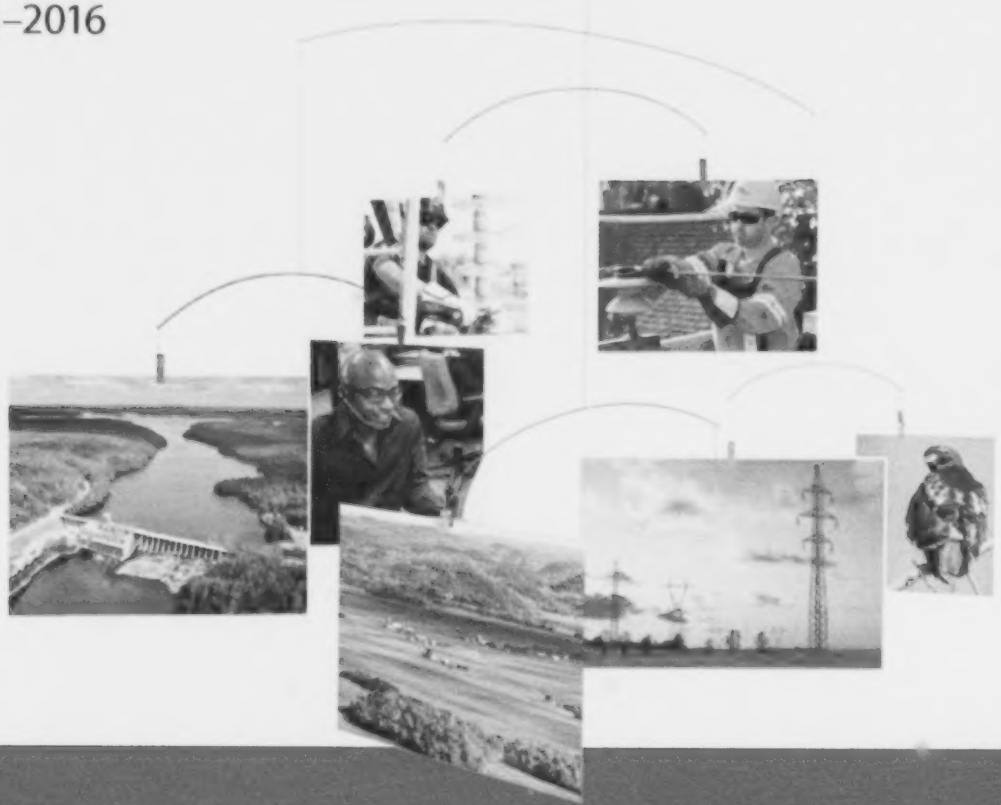
Hydro Québec

Sustainable Development Action Plan
2013–2016



Sustainability: An Everyday Reality

Message from the President and Chief Executive Officer

Continuing on the right track

The principles of sustainable development have been embedded in Hydro-Québec's business practices for nearly 25 years. They influence all our activities and reflect a firmly rooted corporate culture.

We began setting up ISO 14001–certified environmental management systems in 1997; today, these systems cover the activities of the great majority of our employees. Since 2002, we have published an annual Sustainability Report describing our environmental, social and financial performance for the preceding year.

The *Sustainable Development Action Plan 2013–2016* is a continuation of the previous Action Plan, which covered the period from 2009 to 2013. Through the Action Plan, Hydro-Québec contributes to the implementation of Québec's Government Sustainable Development Strategy, the strategy to ensure the occupancy and vitality of territories, and Québec's Agenda 21 for culture. This new edition reaffirms our commitment to invest in sustainable development through 10 actions that we intend to initiate or continue over the next four years. They are in line with the company's main business objectives.

The success of our first Sustainable Development Action Plan testifies to our employees' commitment and motivation to contribute to society's efforts to ensure the well-being of present and future generations. The execution of this second Action Plan will again call upon the commitment and motivation of all our personnel.

Thierry Vandal
President and Chief Executive Officer

The *Sustainable Development Action Plan 2013–2016* consists of 10 actions, improvement targets and performance indicators. The actions are in line with the company's main business objectives.

For certain actions, the description includes specific initiatives to be taken to reach the target. Every year, in our Sustainability Report, we will report our performance in carrying out these initiatives and the entire Action Plan.

The actions must contribute to the objectives laid out in Québec's *Government Sustainable Development Strategy 2008–2013*. To enable quantification of the Action Plan results in relation to the strategy, each action must be linked to a single objective, even if it actually targets more than one. Accordingly, each description indicates only the strategic direction and objective to which the action principally contributes. Two of the actions also promote the implementation of Québec's "Agenda 21 for culture"; these are indicated by the symbol for easy identification.

Under the *Act to ensure the occupancy and vitality of territories*, enacted in 2012, each government department, agency and enterprise must make public its contribution to the objectives of the 2011–2016 strategy to ensure the occupancy and vitality of territories. Hydro-Québec has chosen to incorporate a number of actions from the strategy into its Sustainable Development Action Plan; these are indicated by the symbol OVT for easy identification, and the corresponding directions and objectives in the government strategy are stated.

Action
1

Build hydropower projects

Hydro-Québec has a responsibility to ensure a secure supply of electricity in Québec. Its projects must meet three fundamental criteria: they must be profitable, environmentally acceptable and favorably received by the host communities. Each project undergoes rigorous environmental assessment and follow-up. The company also strives to ensure that its projects are well accepted locally by forging agreements with Aboriginal and other communities and partnering with them in its projects.

This action, first initiated in the previous Action Plan, consists in continuing work on the Romaine hydropower complex. This $6.5-billion project involves building four generating stations with a total installed capacity of 1,550 MW and annual output of 8 TWh. The first generating station, Romaine-2 (640 MW, 3.3 TWh), is slated for commissioning in 2014. A second facility, Romaine-1 (270 MW, 1.4 TWh), will go into service in 2016. The Romaine project will generate substantial economic spinoffs: about $3.5 billion for all of Québec, and $1.3 billion just for the Côte-Nord region. It will sustain an average of 975 jobs for each year of construction.

Corporate objective	Continue developing Québec's hydropower potential
Target	▪ Increase installed capacity by 910 MW and annual output by 4.7 TWh by 2016
Indicator	▪ Capacity made available by the Romaine project (MW)

CONTRIBUTION *TO THE GOVERNMENT SUSTAINABLE DEVELOPMENT STRATEGY 2008–2013*

Government direction

- Produce and consume responsibly

Government objective

- Increase the share of renewable energies having less impact on the environment (biofuels, biomass, solar energy, wind power, geothermal energy, hydroelectricity, etc.) in Québec's energy consumption

CONTRIBUTION TO THE *2011–2016 STRATEGY TO ENSURE THE OCCUPANCY AND VITALITY OF TERRITORIES*

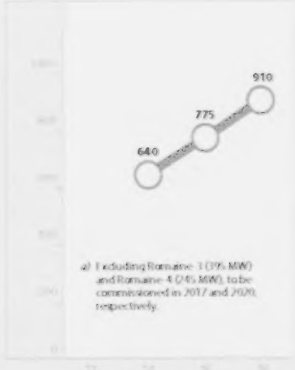
Government direction

- Take action to live from our territories

Government objective

- Support private and collective entrepreneurship

CUMULATIVE CAPACITY MADE AVAILABLE BY THE ROMAINE PROJECT (MW)[a]



Action
2

Increase output and capacity gains at existing hydroelectric generating stations

During generating station refurbishment or refitting projects, replacing certain equipment can lead to gains in output or available peak capacity. This action is a continuation of the one initiated in the previous Action Plan.

The turbine runner replacements scheduled over the duration of the Action Plan will yield the following gains:

- Rapide-2 generating station (Abitibi-Témiscamingue)
  - Capacity gains of 9 MW
  - Average output gains of 14 GWh/year
- Rapide-7 generating station (Abitibi-Témiscamingue)
  - Capacity gains of 9 MW
  - Average output gains of 9 GWh/year
- Robert-Bourassa generating station (Nord-du-Québec)
  - Average output gains of 102 GWh/year
- Beauharnois generating station (Montérégie)
  - Average output gains of 45 GWh/year
- Jean-Lesage generating station (formerly Manic-2) (Côte-Nord)
  - Average output gains of 30 MW

Corporate objective	Continue developing Québec's hydropower potential
Target	▪ Increase available peak capacity by 48 MW and achieve average output gains of 170 GWh/year by 2016 at the facilities in Abitibi-Témiscamingue, Nord-du-Québec, Côte-Nord and Montérégie
Indicators	▪ Additional available peak capacity (MW) ▪ Average annual output gains (GWh/year)

CONTRIBUTION TO THE *GOVERNMENT SUSTAINABLE DEVELOPMENT STRATEGY 2008–2013*

Government direction

- Produce and consume responsibly

Government objective

- Increase the share of renewable energies having less impact on the environment (biofuels, biomass, solar energy, wind power, geothermal energy, hydroelectricity, etc.) in Québec's energy consumption

CONTRIBUTION TO THE *2011–2016 STRATEGY TO ENSURE THE OCCUPANCY AND VITALITY OF TERRITORIES*

Government direction

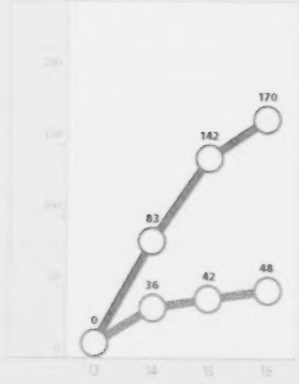
- Take action to ensure better occupation of our territories

Government objective

- Support local, supralocal, regional and metropolitan bodies that go green

○ CUMULATIVE GAINS IN AVAILABLE PEAK CAPACITY (MW)

○ AVERAGE ANNUAL OUTPUT GAINS (GWh/year)



Action
3

Continue energy efficiency initiatives

Through all energy efficiency initiatives combined, Hydro-Québec is targeting savings of 11 TWh[1] by 2015. This target includes 8 TWh from Energy Efficiency Plan (EEP) programs for the various customer categories. It also includes the CATVAR project, which involves setting up a system for voltage regulation and reactive power control in order to reduce energy losses. The total energy savings will be equivalent to the annual consumption of about 407,000 households that heat with electricity. In this way, the company is contributing to the *Québec Energy Strategy 2006–2015*.

The EEP focuses on energy conservation measures and includes programs tailored to residential customers, commercial and institutional markets, and small, medium-sized and large industrial customers.

In the coming years, we will devote greater effort to improving customers' awareness about their electricity consumption and will offer them programs adapted to their needs.

We will also continue work on the CATVAR project until 2018.

Corporate objective	Continue energy efficiency initiatives
Target	▪ Achieve savings of 11 TWh by 2015
Indicator	▪ Annual energy savings (GWh/year)
Specific initiatives	▪ Continue rolling out the Energy Efficiency Plan ▪ Continue work on the CATVAR project

1. Savings from the EEP and CATVAR, as well the efforts of the Bureau de l'efficacité et de l'innovation énergétiques.

CONTRIBUTION TO THE *GOVERNMENT SUSTAINABLE DEVELOPMENT STRATEGY 2008–2013*

Government direction

- Produce and consume responsibly

Government objective

- Promote reduction in the amount of energy, natural resources and materials used to produce and market goods and services

ANNUAL ENERGY SAVINGS (GWh)

Action
4

Continue to help low-income customers

Hydro-Québec has established various measures to help low-income customers and customers experiencing payment difficulties so that their access to electricity can be maintained. Many of these measures were developed in collaboration with consumer associations and community groups having some expertise in low-income households, for example:

- sliding-scale payment arrangements for low-income customers
- awareness training for collection staff about the issue of poverty

Up to 2008, the company had just over 20,000 payment arrangements with low-income customers. Since then, the number has almost tripled, totaling close to 58,000 in 2012. This is mainly because less stringent eligibility criteria were adopted in 2010 to take into account the situation of households whose incomes were modest but just above the low-income threshold. This action is a continuation of the one initiated in the previous Action Plan.

Corporate objective	Take customer concerns into consideration
Target	▪ Maintain the means deployed; in particular, keep the number of payment arrangements with low-income customers at 56,000 annually
Indicator	▪ Number of arrangements with low-income customers[2]
Specific initiatives	▪ Continue cooperation with consumer associations and community groups ▪ Continue improving assistance for low-income customers and those with payment difficulties by implementing further initiatives and programs, once approved by the Régie de l'énergie

2. Including long-term arrangements.

CONTRIBUTION TO THE *GOVERNMENT SUSTAINABLE DEVELOPMENT STRATEGY 2008–2013*

Government direction

- Prevent and reduce social and economic inequality

Government objective

- Prevent and fight poverty and social exclusion

NUMBER OF PAYMENT ARRANGEMENTS WITH LOW-INCOME CUSTOMERS

Action
5

Contribute to the reduction of transport-related GHG emissions and collaborate in the electrification of transportation in Québec

In 2006, Hydro-Québec implemented an environmental program aimed at reducing greenhouse gas emissions from its vehicle fleet. Action 5, which is continued from the previous Action Plan, targets a 12% reduction in GHG emissions from the light vehicle fleet by 2016, compared with 2005. This is in line with the *Québec Energy Strategy 2006–2015*, the *2013–2020 Climate Change Action Plan* and the Québec policy for ecoresponsible government.

The program includes the incorporation of fuel-efficient, electric and hybrid vehicles into our fleet, along with employee education on more environmentally friendly driving habits. Certain heavy vehicles will have their speed restricted to 90 km/h, and an automatic start/stop engine technology is being tested, for heavy vehicles.

Alongside these efforts, we are continuing our participation in the *allégo* initiative to promote means other than single-occupant vehicles for getting to and from work, in keeping with the *Québec Public Transit Policy*.

In addition, we are contributing to the electrification of public transit, in particular through our expertise in electricity, by working with transit authorities. As for personal transportation, in accordance with the Québec government action plan on electric vehicles (Electric Vehicles: 2011-2020 Québec Action Plan), we support and coordinate the public charging services offered by companies and organizations by grouping them under one banner—The Electric Circuit—with a common strategy. Each of the founding partners, with Hydro-Québec acting in an advisory role, makes decisions regarding the number of charging stations and their distribution over the territory.

Corporate objective	Stabilize transport-related GHG emissions and contribute to the electrification of transportation
Targets	▪ Maintain a GHG emission reduction target of 12% compared to 2005 for the light-vehicle fleet ▪ Continue activities related to transportation electrification ▪ Monitor the deployment of The Electric Circuit in Québec
Indicators	▪ Atmospheric emissions from the light-vehicle fleet (t CO_2 eq.) ▪ Number of charging stations and number of regions covered by the deployment of The Electric Circuit
Specific initiatives	▪ Continue the vehicle fleet environmental program for both light and heavy vehicles ▪ Continue participating in the *allégo* initiative ▪ Step up awareness training for employees on impacts of business travel

CONTRIBUTION TO THE *GOVERNMENT SUSTAINABLE DEVELOPMENT STRATEGY 2008–2013*

Government direction

- Produce and consume responsibly

Government objective

- Promote reduction in the amount of energy, natural resources and materials used to produce and market goods and services

CONTRIBUTION TO THE *2011–2016 STRATEGY TO ENSURE THE OCCUPANCY AND VITALITY OF TERRITORIES*

Government direction

- Take action to ensure better occupation of our territories

Government objective

- Support efficient, diversified and integrated transportation systems that contribute to GHG emission reduction

ATMOSPHERIC EMISSIONS FROM THE LIGHT-VEHICLE FLEET (t CO_2 eq.)

Action
6

Contribute to the implementation of Québec's policy for ecoresponsible government

The ISO 14001–certified environmental management systems we have introduced since 1997 have led to improvements in our management of residual materials. Action 6 is a continuation of the ecoresponsible initiatives begun in the previous Action Plan.

Over the years, we have set up a number of pro-environment programs: we recover hazardous residual materials, recycle metals, recondition power line hardware and recycle waste (paper, cardboard, food containers, etc.). This is in line with the *Québec Residual Materials Management Policy*.

Hydro-Québec makes use of many types of material and equipment, whether in the construction and operation of facilities or in providing services to customers. Goods and services procured from Québec-based companies totaled $2.8 billion in 2012. Hydro-Québec gives preference to local suppliers and applies environmental criteria in its purchases of goods and services.

In recent years, Hydro-Québec has conducted life-cycle analyses on certain products and has written purchasing guides that include ecoresponsible specifications. Seeking to contribute to the implementation of the policy for ecoresponsible government, the company plans to continue producing such guides.

This action also includes the continuation of efforts in the organization of sustainable events and in the ecoresponsible management of events held by the company.

Corporate objective	Improve environmentally responsible practices
Target	▪ Produce one new guide to ecoresponsible purchasing each year
Indicator	▪ Number of product purchasing guides that include ecoresponsible specifications
Specific initiatives	▪ Continue efforts in reduction at source, reuse and recycling ▪ Continue purchasing FSC-certified, 100% recycled paper ▪ Continue to organize sustainable events and to promote responsible management of events sponsored by Hydro-Québec

CONTRIBUTION TO THE *GOVERNMENT SUSTAINABLE DEVELOPMENT STRATEGY 2008–2013*

Government direction

- Produce and consume responsibly

Government objective

- Apply environmental management measures and an ecoresponsible procurement policy within government departments and agencies

NUMBER OF ECORESPONSIBLE PRODUCT PURCHASING GUIDES (cumulative)

Action
7

Inform and educate employees about sustainability and the company's approach

At Hydro-Québec, many communication, awareness and skill development activities related to sustainability are already in place. In 2012, a telephone survey was conducted to measure the proportion of employees who knew about sustainable development. Result: 89% of the survey respondents said they had an excellent or good understanding of the concept.

The company intends to keep up its efforts to promote employee awareness. More specifically, it plans to inform new hires about sustainable development and about its approach and its achievements in that regard.

Corporate objective	Inform and educate employees about sustainability and the company's approach
Target	▪ 80% of new hires informed and educated about the company's sustainable development approach
Indicator	▪ Percentage of new hires having received the information (%)

CONTRIBUTION TO THE *GOVERNMENT SUSTAINABLE DEVELOPMENT STRATEGY 2008–2013*

Government direction

- Inform, make aware, educate, innovate

Government objective

- Make people increasingly aware of the sustainable development concept and principles. Promote knowledge and experience sharing in this area and assimilate the knowledge and know-how facilitating implementation.

PERCENTAGE OF NEW HIRES HAVING BEEN INFORMED ABOUT SUSTAINABLE DEVELOPMENT (%)

Action
8

Preserve and enhance biodiversity in transmission and distribution line rights-of-way

To ensure continuity of service, vegetation in transmission and distribution line rights-of-way must be controlled. For this reason, the Transmission Provider and the Distributor have implemented biodiversity preservation measures. Hydro-Québec intends to continue its efforts to promote biodiversity in areas affected by the presence of transmission and distribution lines.

The Transmission Provider, which operates 33,639 km of power lines, has already deployed a number of measures for the preservation or enhancement of biodiversity. Some examples are protection of streams and wetlands, on-site management of wood debris and preservation of endangered species. Other measures, such as control of invasive or nuisance species, are being prepared.

The Distributor, which manages 114,649 km of power lines, aims to improve habitats through the application of special directives on selective clearing, management of vegetation waste and the preservation of some dead trees.

Corporate objective	Protect and enhance the natural and archæological heritage
Target	▪ Maintain the application of special directives on biodiversity enhancement for 90% of scheduled vegetation control operations on the distribution system, and measure the gains
Indicator	▪ Percentage of vegetation control operations per year that include measures for enhancing biodiversity (%)
Specific initiatives	▪ Document practices that are currently in use or scientifically recognized, and recommend practices to be deployed on the transmission system ▪ Share our biodiversity enhancement program with the various local authorities (municipalities, RCMs)

CONTRIBUTION TO THE *GOVERNMENT SUSTAINABLE DEVELOPMENT STRATEGY 2008–2013*

Government direction

- Preserve and share the collective heritage

Government objective

- Protect and promote natural heritage and resources within the support capacity of ecosystems

CONTRIBUTION TO THE *2011–2016 STRATEGY TO ENSURE THE OCCUPANCY AND VITALITY OF TERRITORIES*

Government direction

- Go green

Government objective

- Support local, supralocal, regional and metropolitan bodies that go green

PERCENTAGE OF DISTRIBUTION SYSTEM VEGETATION CONTROL OPERATIONS PER YEAR THAT INCLUDE MEASURES FOR ENHANCING BIODIVERSITY (%)

Action
9

Publicize the knowledge acquired through Hydro-Québec environmental studies

Over the past 40 years, in the course of its hydroelectric development projects, system growth and asset sustainment projects and ongoing operation of facilities, Hydro-Québec has conducted numerous environmental impact assessments and follow-up studies as well as many research studies on various environmental issues. The results constitute a large body of scientific knowledge on the environmental assessment of generating and transmission projects.

Action 9 deals with the production of publications summarizing the environmental knowledge acquired since the 1970s. The publicization and dissemination of these documents will facilitate the transfer of knowledge. In addition, the lessons learned will ensure continuing improvement of practices in the field.

Corporate objective	Disseminate the environmental knowledge acquired
Target	▪ Produce two summary documents per year
Indicator	▪ Number of documents published to the Web

CONTRIBUTION TO THE *GOVERNMENT SUSTAINABLE DEVELOPMENT STRATEGY 2008–2013*

Government direction

- Preserve and share the collective heritage

Government objective

- Protect and promote natural heritage and resources within the support capacity of ecosystems

CONTRIBUTION TO QUÉBEC'S AGENDA 21 FOR CULTURE

Government objective

- Take culture into consideration in the development and implementation of environmental protection policies, especially in impact assessments for large projects

NUMBER OF DOCUMENTS PUBLISHED ON THE WEB
(cumulative)

Action
10

Continue to protect and enhance the company's built and technological heritage

Hydro-Québec safeguards a vast heritage made up of sites, buildings and equipment. These assets are not only witnesses to technological development but also reflect the history of the society that created, modified and used them. We are working with various parties to manage this heritage and are engaged in activities aimed at its identification, conservation and enhancement. For example, we are conducting inventories of our built and technological heritage (facilities), and we manage a historical collection of more than 3,500 objects representing the company's activities.

Hydro-Québec showcases its built and technological heritage in several regions of Québec, in some cases by offering tours of its facilities and of jointly operated sites. In this way, it helps attract tourists to the region.

Corporate objective	Protect and enhance the built, technological, natural and archæological heritage
Targets	▪ Produce two guides to good practice for protection of the built and technological heritage ▪ Encourage public access to certain facilities
Indicators	▪ Number of good-practice guides produced and disseminated ▪ Number of annual visits to facilities and jointly operated sites
Specific initiatives	▪ Develop new tools for protection and enhancement of the built and technological heritage, and disseminate them within the company ▪ Make the public aware of the built and technological heritage through guided tours

CONTRIBUTION TO THE *GOVERNMENT SUSTAINABLE DEVELOPMENT STRATEGY 2008-2013*

Government direction

- Preserve and share the collective heritage (collective heritage management/cooperation/solidarity)

Government objective

- Step up conservation and development of the cultural and scientific heritage

CONTRIBUTION TO THE *2011-2016 STRATEGY TO ENSURE THE OCCUPANCY AND VITALITY OF TERRITORIES*

Government direction

- Take action to ensure better occupation of our territories

Government objective

- Protect and develop the cultural heritage

CONTRIBUTION TO QUÉBEC'S AGENDA 21 FOR CULTURE

Government objective

- Take culture into consideration in the development and implementation of environmental protection policies, especially in impact assessments for large projects

NUMBER OF GOOD-PRACTICE GUIDES PRODUCED AND DISSEMINATED (cumulative)

APPENDIX

Grounds for omitting government strategy objectives from the Action Plan

The *Sustainable Development Action Plan 2013–2016* consists of 10 actions. To facilitate the quantification of results in relation to the *Government Sustainable Development Strategy 2008–2013*, each action must be linked to a single objective, even if it actually targets more than one. Our Action Plan does not contribute to all 29 objectives of the government strategy, for the following reasons:

A The government objective is less related to the field of activities or responsibilities associated with Hydro-Québec's mission. We have therefore not planned a specific action for that objective in our Action Plan.

B Because of our existing priorities for the Plan period, we are unable to contribute to this objective.

C The objective is already covered by another action in our Plan.

	GOVERNMENT OBJECTIVE	REASON	ADDITIONAL INFORMATION
	Inform, make aware, educate, innovate		
2.	Create and periodically update Québec's sustainable development profile	A	
3.	Support research and new practices and technologies contributing to sustainable development and maximizing its spinoffs in Québec	C	Actions 1, 2 and 3 contribute to achieving this objective.
	Reduce and manage risks to improve health, safety and the environment		
4.	Continue developing and promoting a culture of prevention and define conditions that are beneficial for health, safety and the environment	C	Actions 4, 6 and 9 contribute to achieving this objective.
5.	Better prepare communities to face events that could harm their health and safety and to attenuate the consequences	A	
	Produce and consume responsibly		
9.	Apply more ecoconditionality and social accountability in public assistance programs and encourage their implementation in financial institutions' programs	A	
10.	Provide the reference points required to make enlightened, responsible consumer choices and promote goods and services certification	C	Action 6 contributes to achieving this objective.
	Increase economic efficiency		
11.	Increasingly reveal the externalities associated with goods and services production and consumption	B	
12.	Promote recourse to economic fiscal and non-fiscal incentives so that goods and services production and consumption reflect sustainable development imperatives	A	

	GOVERNMENT OBJECTIVE	REASON	ADDITIONAL INFORMATION
	Address demographic changes in Québec and its regions		
13.	Improve the demographic profile of Québec and its regions	A	
14.	Focus on family life and facilitate conciliation of work, school and personal life	B	
15.	Increase standard of living	A	
16.	Increase productivity and quality of jobs using measures that are ecologically and socially responsible	B	
17.	Transfer public health funds to future generations	A	
GVT	**Practice integrated, sustainable land use and development**		
18.	Integrate the imperatives of sustainable development in regional and local strategies and design and development plans	C	Actions 1 and 5 contribute to achieving this objective.
19.	Strengthen the viability and resilience of urban, rural and territorial communities and Native communities	C	Actions 1 and 5 contribute to achieving this objective.
20.	Provide access to basic services according to regional and local realities, with a view to equity and efficiency	A	The *Hydro-Québec Act* describes the conditions associated with this objective.
	Preserve and share the collective heritage		
21.	Step up conservation and development of the cultural and scientific heritage	B	Actions 9 and 10 contribute to achieving this objective.
23.	Step up cooperation with national and international partners on integrated sustainable development projects	A	
	Promote social involvement		
24.	Increase citizens' involvement in their community	A	
25.	Increase consideration for the concerns of citizens in decisions	C	Action 1 contributes to achieving this objective.
	Prevent and reduce social and economic inequality		
27.	Increase schooling, number of graduates and the population's qualification	A	
28.	Increase participation in ongoing training activities and manpower qualification	C	Action 7 contributes to achieving this objective.
29.	Support initiatives of the social economy sector aimed at the sustainable integration of people outside the job market	A	

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